F	IAI LL	EY	& CH			Т	EST BORING REPORT	F	3oı ile She	No).	324	186	P01			
f.)	n)	No.	t.)	ram	əpth	Symbol	Visual-Manual Identification and Description	1	avel		Sar				ield ගූ	Tes	st_
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Syr	(Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
- 10	룹	Sa	νς Δ	×	山世	Sn	structure, odor, moisture, optional descriptions, geologic interpretation)	%	%	%	%	%	%	Ö	Tor	Pla	Stre
- 11				MAA.		SP	Same as above except fine grained, no stain.										
- 12						SP	Same as above except medium grained.										
- 13						SP	Same as above except medium to coarse grained.										
- 14	ND									The state of the s		10000000					
- 15	ND						Soil gas at 15 feet.						100000000000000000000000000000000000000		The state of the s		
- 16								344					The state of the s			THE TAXABLE PARTY AND THE PART	
- 17				***************************************								- AT THE BANK OF					
- 18	ND	4.000				SM SP	Soft, olive brown, silty SAND (SM), fine to medium grained, moist, no odor, no stain.							A PARTY OF THE PAR			
- 19							Medium stiff, brown, SAND (SP), moist, no odor, no stain.							Application			
- 20 -	-			The state of the s		SP	Same as above, except fine to medium grained.						The state of the s			***************************************	
- 21	Λ 1						Soil gas at 21 feet.								-		
- 22	0.1	<u> </u>	222.0 - 22.5			CL	Medium stiff, gray brown, CLAY (CL), wet, no odor, no stain.					The second secon	And the second s				
- 23					777 3000												
- 24					24.0		Bottom of exploration at 24 feet.						_				\perp
							Note: Hole collapsed at 21 feet.										
							nm) is determined by direct observation within the limitations of complex also				\perp						

USCS_TB3 USCSLIB3.GLB USCSTBC3.GDT G:\\\032488\G\INT\\032486_LOGS.GPJ Apr 19, 06

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No.

DP0173

I A	IAL LD	EY RIC	& ℃ `H			T	EST BORING REPORT	F	ile	No).	324	186	P01		• • • • • • • • • • • • • • • • • • •	
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	_	avel		San	ıd			ield ගූ	Plasticity Es	Strength
							Borehole backfilled with hydrated bentonite upon completion.										

USCS_TB3 USCSLIB3.GLB USCSTBC3.GDT G;\\(\alpha\)2486\LOGS.GPJ Apr 19, 06

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

HA	AL LD	EY&	æ H				EST	BORING REPORT Boring No. DP0184							
Proj Clie Con		D	ormer A elphi Co terphase	orporat		ry Op	erations	1201 N. Magnolia File No.: 32486 - 006 Sheet No.: 1 of 1 Start: March 29, 2006 Finish: March 29, 2006							
			С	asing	Sam	pler	Barrel	Drilling Equipment and Procedures Driller: Fernando							
Туре)				G			Rig Make & Model: GeoProbe H&A Rep.: K. Hoggan, G. And	ro						
Insid	e Dia	meter	(in.)		1 3	/4		Bit Type: Cutting Head Elevation Drill Mud: None Datum							
i i		Veight	1		Pus	sh	-	Casing: MacroCore Location N -	l						
Ham	mer l	Fall (in	.)				-	Hoist/Hammer: Hydraulic E -							
£	<u>ج</u>	Š.	<u>.</u>	8	l td	lodr		Visual-Manual Identification and Description Gravel Sand Field Test	1						
Depth (ft.)	PID (ppm)	Sample No	Sample Depth (ft.)	Mell Diogram	Elev./Depth	(π.) USCS Symbol	(De	Visual-Manual Identification and Description Jensity/consistency, color, GROUP NAME, max. particle size**, ture, odor, moisture, optional descriptions, geologic interpretation)							
- 0 -		S	S		. ш		Concre	ete rubble 6 inches thick.	ł						
	1 001 0.5 - 1.0 SM Medium dense, brown, silty SAND (SM), fine grained, cohesive, moist, no stain, no odor.														
- 1															
	2 003 2.5 - 3.0														
- 3	003 2.5 - 3.0														
- 4		And the second		ED											
·				NO WELL INSTALLED	4.0	CI		um stiff, brown, lean CLAY with sand (CL), low to medium city, moist to wet, no stain, no odor, increased sand content							
		005	4.5 - 5.0		A. C.		with de	lepth.							
- 5 -															
				N O	1000000		100								
- 6					6.0	CI		um stiff, brown, sandy CLAY (CL), low plasticity, moist, no door.							
		007	6.5 - 7.0				Stain, I	ilo odor.							
- 7		007	0.5 - 7.1												
					7.5	SM		um dense, brown, silty SAND (SM), fine grained, moist to wet, 60 40 in, no odor.							
- 8					8.0) -	-10 0441	Bottom of exploration at 8 feet.							
								dwater not encountered.							
							Boreho	ole backfilled with hydrated bentonite upon completion.							
		10	oto - 1 -	(0 0	_			Comple Identification Well Discuss	F						
	4.0		ater Lev Elaps		a Depth	າ (ft.) :	0:	Sample Identification Well Diagram Summary O Open End Rod Riser Pipe Overburden (lin. ft.)							
Da	ite	Time	Time	(hr B	ottom	Bottom of Hole	Water								
								U Undisturbed Sample Cuttings Samples							
								S Split Spoon Concrete Boring No. DP0184							
Fiel	ld Tes	ts:		Dilata				Bentonite Seal Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High							
*8			blows pe	er 6 in.		Maxim	um particle	edium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High e size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).							
	N	ote: So	oil ident	ification	n and	perce	ntages b	pased on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.	1						

H	AL LD	EY& RIC	}æ H	***************************************		Т	EST	BORING REPORT		E	 3c	orii	ng	N	о.		DP	018	35	
Proj Clie Con		D	ormer An elphi Cor terphase			у Оре	rations	1201 N. Magnolia		9	She Sta	eet art:	No	0.:] N	l of Iar	f 1 ch 2	28, 2	200		
			Ca	sing	Samp	ler	Barrel	Drilling Equipment and P	Procedures			ish Iler		IV			28, 2 and)	
Туре)				G			Rig Make & Model: GeoProbe				A F		p.:			ındr	-	0	
Insid	le Dia	ameter	(in.)		1 3/4	4		Bit Type: Cutting Head		- 1		eval		n						
Ham	mer	Weigh	t (lb.)		Push		_	Drill Mud: None		J		tum cati								
ı		Fall (in					_	Casing: MacroCore Hoist/Hammer: Hydraulic		1	V -	-	٠							
	ı		<u> </u>		<u>-</u>	1 0						vel	- (San	d		F	ield	Tes	it
(ft.)	(mc	N S	(#)	agrar	Sept	ymp	\	/isual-Manual Identification and D	Description	g	מַנ		rse	Medium		S	ج ا	ess	>	_
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	(De structi	ensity/consistency, color, GROUP NAME ure, odor, moisture, optional descriptions	E, max. particle size* s, geologic interpreta	ion)	% CG	% Fine	% Coarse	% Med	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
- 0 -							Road lo	oose, concrete.			Ŧ		T							
					0.6	SP	Loose,	orange fill, SAND, coarse grained.												
- 1		001	1.0 - 1.5			ML	Loose,	medium brown, SILT (ML), moist, no	o odor, no stain.	4										
- 2						SP	Loose,	medium brown, SAND (SP), coarse g.	grained, moist, no od	or,				And the second s						
- 3				-												Odenoviolen				
		003	3.0 - 3.5																	
- 4				LLED	0000	SP		medium brown, SAND (SP), very fine , no stain.	e to fine grained, mo	ist,		- Annual Control of the Control of t								
		005	4.5 - 5.0	INSTA		CL		n stiff, medium brown, lean CLAY (C	CL), moist, no odor,	no										
- 5 -		003	4.5 - 5.0	NO WELL INSTALLED			stain.													
- 6				NO																
						ML	Mediun trace fi	n stiff, medium brown, SILT (ML), me sand.	noist, no odor, no sta	n,										
- 7		007	6.5 - 7.0			SP		medium brown, SAND (SP), fine grain	ined, moist, no odor,	no										
		AND THE PROPERTY OF THE PROPER				SP	Same a	s above except, fine to medium grained	d.		- Control of the Cont									
- 8					8.0			Bottom of exploration at 8	feet.		t	+	+		\dashv			+		
								water not encountered. e backfilled with hydrated bentonite.												
												W. Carlotter				The state of the s				
											_									
			ater Leve Elapse		Depth	(ft.) to);		/ell Diagram Riser Pipe	O 1				nma						
Da	te	Time	Time (h	r √ Bo	ttom Bo	ottom Hole	Water	O Open End Rod T Thin Wall Tube	Screen Filter Sand	Overb Rock			,		,					
				0, 0,	using ()	noie		U Undisturbed Sample	Cuttings	Samp			u (,1111.	11.					
								S Split Spoon G Geoprobe	Grout Concrete Bentonite Seal	Borii	ng	j N					018	35		
	d Tes				ness: I	L-Low	. M-Med	lium. H-High Dry Strengt	N-Nonplastic, L-Lo th: N-None, L-Low	. M-Me	edi	ium). F	H-H	iah.	V-	Ver	<u>/ Hi</u>	gh	
*S			blows per 6 oil identifi		**M n and po	aximur e rcen 1	n particle tages b a	size (mm) is determined by direct observased on visual-manual methods o	vation within the limita	ions of s	san	mple	er si	ize (in m	illim	eters	\$).		

H	AL LD	EY	Sz H				Т	EST	BORING REPO	RT		В	ori	ng	j N	о.		DP	018	36	
Clie	ect: nt: tract	D	ormei elphi nterph	Corp			у Оре	erations	1201 N. Magnolia			Sł St	le N hee tart:	t N	o.: ;	l o Iar	f 1 ch2	28,	200		
				Cas	sing	Samp	ler	Barrel	Drilling Equipmen	nt and Procedures			nish rille		IN			28, : and		0	
Туре						G			Rig Make & Model: Geo	oProbe		1	&A		p.:			Iogg			
Insid	le Dia	ametei	· (in.)			1 3/-	4		Bit Type: Cutting Head	!		1	eva		n						
Ham	mer	Weigh	it (lb.)			Pusl		_	Drill Mud: None				atur ocat								
		Fall (ir	. 1					_	Casing: MacroCore Hoist/Hammer: Hydra	aulic		N E	-		•						
_	ı		1		l E	│ <u></u>	<u> </u>	1 .				-	avel		San	d		F	ield	Tes	t
	(md	S e	<u>o</u> \$		agra	Dep	Symb	\	√isual-Manual Identificatio	n and Description		Se		Coarse	Medium	4)	ςχ	5	ess	≥	
Depth (ft.)	PID (ppm)	Sample No.	Sample	<u> </u>	Well Diagram	Elev./Depth	USCS Symbol	(De	ensity/consistency, color, GRO ure, odor, moisture, optional de	UP NAME, max. particle size	**,	% Coarse	Fine	Coa	Mec	Fine	Fines	Dilatancy	Toughness	Plasticity	Strength
<u> </u>	立	Š) iii	<u> </u>	Š	∃ €	3			escriptions, geologic interpreta	ition)	%	%	%	%	%	%	۵	으	집	Str
								Concre	ete/gravel 6 inches thick.												
		001	0.5 -	1.0		0.5	SM	Mediun	m dense, brown, silty SAND,	moist, no stain, no odor.											
- 1																					
															-						
																				ĺ	
2																					
		002	2.5	2.0																	
3		003	2.5 -	3.0				L													
						3.0	ML		medium stiff, brown, clayey and stain, no odor.	SILT (ML), low plasticity,										L	
					۵			The state of the s													
4					LLE																
					STA																
		005	4.5 -	5.0	NO WELL INSTALLED			0.6.	12 200 1												
5 -					WEL		ML	stain, no	medium stiff, brown, sandy S o odor.	ILT (ML), cohesive, moist,	no										
					NO																
6																					
														ĺ		ĺ					
7																					
		007	7.0 -	7.5																	
						7.6	-SP	Medium	n dense, brown, SAND, fine g	grained, moist, no stain, no		-+		-	-	- 🚽			-+		
8						8.0		odor.	Bottom of explora	tion at 8 feet.		+	\dashv	+		+			\dashv	+	
								Borehol	le backfilled with hydrated bea	ntonite upon completion.		ĺ									
									·	T									100		
				The state of the s									-								
		W	ater L				ff \ L-		Sample Identification	Well Diagram					ıma						
Da	te	Time		psec e (hr.	Bot		ottom	Water	O Open End Rod	Riser Pipe Screen	Ove			,		,					100
			+		of Ca	sing of	Hole		T Thin Wall Tube U Undisturbed Sample	Filter Sand Cuttings	Roc Sam			ed (lin.	ft.)					
									S Split Spoon	Grout Concrete				<u> </u>				011		-	\dashv
Fial	d Tes	to:		רו	ilatan	CV: E	P-Rani	4 6 612	G Geoprobe ow, N-None Plas	Bentonite Seal	Bor							018	56		
		ts: Sampler	hlows	To	oughr	iess: L	Low	. M-Med	tium, H-High Dry size (mm) is determined by dire	sticity: N-Nonplastic, L-Lo Strength: N-None, L-Lov	v M-N	Лed	lium	ı F	H-Hi	αh	V-'	Ver	/ Hi	gh	$ \bot $
্ । -						and pe	ercen	ages ba	size (mm) is determined by dire used on visual-manual me	thods of the USCS as pr	actice	sa d b	mple y H	∍r si ale	ze (n m	dric	eters h, li	i). 1C.		

	ALI DI	EY& RICH	z I				ΓEST	BORING REPOR	RT		3or	ing	j N	ο.	D	P01	94A	
Proje Clien Contr	t:	De	rmer Ana lphi Corp erphase			егу Ор	erations	1201 N. Magnolia		3	ile I Shee	et N :	o.:]	l of Apri	3 1 12	06 , 20 , 20		
			Cas	sing	Sam	pler	Barrel	Drilling Equipmen	t and Procedures		inis Irille		I	-		sque		
Туре					(***************************************	Rig Make & Model: Geo	Probe		l&A		p.:			_		ζ. Н
1	Dia	meter (in)		1 3			Bit Type: Cutting Head			lev		n					
1		Veight		•				Drill Mud: None		-	atu							
l		all (in.)	` '	•	Pu	SII	-	Casing: MacroCore	1']	.oca	ΙΟΙ	1					
Hallill	nei r	ali (III.,	-				-	Hoist/Hammer: Hydra	ulic		- rave	ıl .	San	4	-	Eio	ld Te	ot.
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth	(ft.) USCS Symbol	(De	Visual-Manual Identification ensity/consistency, color, GROL	IP NAME, max. particle size*			% Coarse			% Fines	Dilatancy		
De la	믑	Sar	Sal	We	<u></u> ≝	US(struct	ture, odor, moisture, optional des	scriptions, geologic interpretat	ion) a	%	8	%	%	%		- Pla	Stre
0							See Te feet.	est Boring Report DP0194 for s	oil descriptions from 0 to 15									
- 1		The state of the s										Total Control of the						
- 2		The state of the s																
- 3												And the second second						
- 4		-		LED														
				TAL														
		-		NO WELL INSTALLED														
- 5 -				VELI														
				40 V														
- 6																		
- 7															-			
The state of the s													North Control					
- 8																		
- 9						3							200					
													-					
- 10		Wa	ter Level	Data	1			Sample Identification	Well Diagram			Sur	nma	ary				
Date	e T	Time	Elapsed	d		h (ft.) 1 Bottom	1	O Open End Rod	Riser Pipe Screen	Over								
			Time (hr	of C	asing	of Hole	Water	1 Time Vall Tabe	Filter Sand	Rock		red	(lin.	ft.)				
								U Undisturbed Sample S Split Spoon	Grout	Sam								
								S Split Spoon G Geoprobe	Concrete Bentonite Seal	Bori	ng	No		D	P 0	194	A	
Field	Test	s:		ilatar oughi					sticity: N-Nonplastic, L-Lo Strength: N-None, L-Low							/erv	Hiah	
*SP			olows per 6	in.	*	*Maxim	um particle	e size (mm) is determined by dire	ct observation within the limita	tions of	samp	oler s	size	(in m	illime	eters)		

I-A	IAL LD	EY RIC	&= CH			Т	EST BORING REPORT	F	3or File She	No).	324	186		1 94 <i>A</i>	1	
		o.		E	-fi	loq	Vigual Manual Identification and Description	Gra	ave		Sar	ıd			ield	Tes	st
Depth (ft.)	(mdd	Sample No.	ple h (ft.)	Well Diagram	/Dep	USCS Symbol	Visual-Manual Identification and Description	% Coarse	_ 	arse	edium	% Fine	Jes	ncy	Toughness	city	gt
	PID (ppm)	Sam	Sample Depth (ft.)	Well	Elev./Depth (ft.)	USCS	(Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	% C	% Fine	% Coarse	W %	% Fi	% Fines	Dilatancy	Toug	Plasticity	Strength
- 10																	
- 11																	
- 12						A A A A A A A A A A A A A A A A A A A			,-		THE REAL PROPERTY AND THE PROPERTY AND T			THE PERSON NAMED IN COLUMN TO SERVICE AND A			Management of the Control of the Con
- 13																	T I I I I I I I I I I I I I I I I I I I
- 14	177700000000000000000000000000000000000	MARIE AND								AND THE REAL PROPERTY OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN							
15 ·		**************************************			15.0											The state of the s	
- 16				THE PROPERTY OF THE PROPERTY O		SW	Soft, light brown, SAND (SW), fine to medium grained, moist, no odor.						VITA A COMMISSION OF THE PERSON OF THE PERSO				
- 17																	
- 18				The second secon													
- 19								No.			***************************************	The state of the s			The state of the s		
20 -		020	19.5 - 20.0														
- 21		-			PROPERTY DESIGNATION AND ADVANCES.	SP	Same as above, except fine grained.					THE PROPERTY OF THE PROPERTY O		CONTRACT DE LA CONTRA			
- 22	2.3	022	21.5 - 22.0		T TO THE COLUMN ASSESSMENT ASSESS	SP	Same as above, except very fine grained.			***************************************		7177	The second secon			707270	
- 23										***************************************						Management	
24										The state of the s							
- 24						SM	Soft, light brown, silty SAND (SM), fine grained, moist, no odor.										

SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No.

DP0194A

I-A	IAL LD	EY RIC	&≠ `H			T	EST BORING REPORT	F	3or File She	No		324	186	P0 1	1 94 <i>A</i>	`	
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	% Coarse	% Fine	se.	% Medium	% Fine	% Fines	Dilatancy	Toughness a	Plasticity a	Strength
- 25 - 26	1.3	025	25.0 - 25.5			SC	Medium stiff, light brown, clayey SAND (SC), very fine to fine grained, moist, no odor.										
- 27							Groundwater encountered at 26.5 feet. Soft, light brown, SAND, fine to medium grained, wet, no odor.								A DESCRIPTION OF THE PROPERTY	77970000000	
- 28					28.0		Bottom of exploration at 28 feet. Note: Collected 1 foot cores for geotechnical tests at 3, 7, 11, 17, and 22 feet. Groundwater encountered at 26.5 feet. Borehole backfilled with hydrated bentonite upon completion.										

H	AL LD	EY& RICI	z H			Т	EST	BORING REPO	RT		В	rii	ng	No).	DP	019	6A	
Proj Clie Con		De	rmer Ana lphi Corp erphase			у Оре	erations	1201 N. Magnolia			Sh Sta	eet art:	No	o.: 1 A	186 - of :	3 12, 2	2006		
		-	Cas	ina	Samp	ler	Barrel	Drilling Equipmer	nt and Procedures			ish Iler		A	pril E	12, 2 Vasc			
Туре					G			Rig Make & Model: Geo				A F		o.;		v asc And	-		. Н
		meter	(in.) -		1 3/4	4		Bit Type: Cutting Head				eva		1					
		Weight		-	Push	i	_	Drill Mud: None Casing: MacroCore		ŀ		tur cati							
Ham	nmer	Fall (in.) -				-	Casing: MacroCore Hoist/Hammer: Hydra	ulic		N E ·	-							
	1	· · ·			 	<u></u> ፬	1 .				Gra			Sand			Field	Tes	st
_ (#)	pm)	Ž <u>o</u>	(ff.)	agra	Dep	Symb	1	Visual-Manual Identification	n and Description		arse	a)	arse	dium	e e	<u>5</u>	Jess	<u>.</u>	ŧ
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	(De	ensity/consistency, color, GROU ure, odor, moisture, optional de	JP NAME, max. particle size scriptions, geologic interpreta	**, ation)	% Coarse	% Fine	% Coarse	% Medium	% Fines	Dilatancy	Toughness	Plasticity	Strength
- 0 -	<u>a</u>	S	<u>оп</u>		<u>ш</u>	1 -	See Te	st Boring Report DP0196 for	soil descriptions from 0 to 1		0.	0,					 	<u>~</u>	S
							feet.	5	¥										
- 1																			
													TOTAL BELLEVILLE AND ADDRESS OF THE PERSON NAMED IN COLUMN 1						
- 2																			
- 3																			
		Lytholdin and a second																VIII.	
4				ED															
- 4				TALI															
		B		NO WELL INSTALLED															
- 5 -				VELI															
				NO V						The state of the s									
- 6																			
		ALL																	
- 7																			
	The state of the s												W. Constitution						
- 8																			
	William Company	999											A						
- 9																			
- 10 -		1/1/	ater Level	Data	1	<u> </u>		Sample Identification	Well Diagram				i i i	nmai	rv				
D:	ate	Time	Elapsed	d	Depth		o:	O Open End Rod	Riser Pipe	Ove	rbu								
			Time (hr			ottom f Hole	Water	T Thin Wall Tube	Filter Sand	Roc	k C	ore		•					
								U Undisturbed Sample S Split Spoon	Grout	San	••••				****				-
								G Geoprobe	Concrete Bentonite Seal	Boı		_				2019	96A		
	ld Tes		Т		ness:	L-Lov	v, M-Me	dium, H-High Dry	sticity: N-Nonplastic, L-L Strength: N-None, L-Lo	w, M-1	<u> Nec</u>	liun	1, I	H-Hi	gh, ۱			igh	
*5			blows per 6 il identifi					e size (mm) is determined by dire cased on visual-manual me											

H	[AL	EY RK	&= CH			Т	EST BORING REPORT	F	3oi File She	No	٥.	324	186		1 96 £	1	
	<u>=</u>	9		am	pth	loqu	Visual-Manual Identification and Description	1	avel		Sar				Field		st
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol		% Coarse	% Fine	oarse	% Medium	ine	% Fines	ancy	Toughness	icity	igth
	PID	Sarr	Sam Dep	Well	(ff.)	nsc	(Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	%	% Fi	% C	№	% Fine	% F	Dilatancy	Toug	Plasticity	Strength
- 10																	
- 11																	
								8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8									
- 12																	
- 13		TOTAL CONTRACT CONTRA															
- 14																	
- 15 -																	
- 16																	
10					16.0	SP	Medium stiff, olive brown, SAND (SP), medium grained, moist, no odor.										
- 17																	
	THE PERSON NAMED IN COLUMN NAM																
- 18			and the second s												-		
- 19																	
		020	19.5 - 20.0														
- 20 -		020	17.3 - 20.0			SP	Same as above, except soft, wet.										
							Date of chapt only not										
- 21																	
- 22										-		THE STREET STREET					
	WATER CONTRACTOR OF THE PERSON NAMED AND ADDRESS OF THE PERSON					СН	Stiff, dark brown, CLAY (CH), moist, no odor.										
		-			A STATE OF THE STA						and the second						
23							Medium stiff, dark brown, SAND, fine grained, moist, no odor.										
	-	024	23.5 - 24.0														
- 24	-				24.0		Bottom of exploration at 24 feet.						+				
							Borehole backfilled with hydrated bentonite upon completion.										
tent -			A				mm) is determined by direct observation within the limitations of sampler size										_

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No.

DP0196A

H A	AL LD	EY&	&± 'H			·	T	EST	BORING REPO	RT		В	ori	ng	j N	ο.		DP	023	33	
Proj Clie Con		D	orme elphi nterph	Corp			у Ор	erations	1201 N. Magnolia			Sh St	le N neer	t N	o.: ;	1 o Mar	f 1	28,	200		
				Cas	sing	Samp	ler	Barrel	Drilling Equipme	ent and Procedures			nish rillei		N			28,		6	
Туре					J	G			Rig Make & Model: Ge	***************************************			Mei &A		n.;			and Iogs		G	And
		to:	/: \						Bit Type: Cutting Head				eva		·		X	1058	5a11,	U .	Anu
		ameter				1 3/-			Drill Mud: None	_		Da	atur	n							
		Weigh	, ,			Pusl	1	-	Casing: MacroCore			Lo N	cat	ion	1						
Ham	mer	Fall (ir	1.)					-	Hoist/Hammer: Hydr	aulic	****	Е	-								
Depth (ft.)	PID (ppm)	Sample No.	Sample	(II.)	Well Diagram	Elev./Depth	S Symbol		/isual-Manual Identification	on and Description OUP NAME, max. particle size		e,	ine	ge ge	San Wedium %		Fines	Dilatancy	Toughness a		
Dep	PID	San	Sam	2	Well	Ele)	USCS	structi	ure, odor, moisture, optional d	escriptions, geologic interpreta	ation)	°	% Fine	°C	%	% F	% F	Dilata	Toug	Plasticity	Strength
- 0		000	0.0 -					Concre	te 6 inches thick.												
		001	0.5 -	1.0		0.5	SP	Mediur	n dense, brown, poorly grade	ed SAND (SP), fine grained,					and the same of th						
- 1		001	0.5	1.0				moist,	no odor, no stain.												
_		002	1.5 -	2.0			-														
2																					
		003	2.5 -	3.0			SP	Same a	s above												
3								June u	3 400 70.												
		004	3.5 -	4.0	ED																
4					ALL	4.2	CL	Medium	a stiff brown lean CLAV (CL) with sand, fine grained, I		-		_	_	10	00		M		
		005	4.5 -	ith clay, fine to medium grain		-		_			[IVI	L							
5 -			4.5	3.0	ELL	4.6	SM	cohesiv	e, moist, no odor, no stain.	iui ciay, fine to medium gran	iea,				15	45	40				
					NO WELL INSTALLED						And a										
					_											İ					
6												-									
		007	6.5 -	7.0																	
7																					
								7777								:					
8												-									
						8.0			Bottom of explora	ation at 8 feet.											
									water not encountered. e backfilled with hydrated be	entonite upon completion.											
												TAXABLE PARTY									
1		W	ater L		1	Depth ((ft) to		Sample Identification	Well Diagram Riser Pipe					nma						
Dat	te	Time	1	psed e (hr.	Bot		ottom	Water	O Open End Rod T Thin Wall Tube	Screen	Ove Roc										
					01 02	ising of	Hole		U Undisturbed Sample		Sam			u (1111.	π.,					
									S Split Spoon	Grout Concrete	Bor			10.			DÞ	023	33		
Field	d Tes	ts:			ilatan				G Geoprobe pw, N-None Pla	Bentonite Seal sticity: N-Nonplastic, L-Lo	w, M-	Me	diun	n,	H-F	ligh	1				
*SI		Sampler		per 6	in.	**M	aximu	n particle	size (mm) is determined by dire	/ Strength: N-None, L-Low ect observation within the limita	tions o	f sa	mple	er si	ize (in n	nillim	eter	3).	gh	
-	N-	ote: So	oil ide	ntific	ation	and pe	ercen	tages ba	ised on visual-manual me	ethods of the USCS as pr	actice	d b	γН	ale	y &	AI	dric	h, I	1C.	_	

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Project Forumer Authaltion Enterty Operations 201 N. Magnolia See No. 3255 - 006 Short Corner actor Incorphase Casing Sampler Barrel Drilling Equipment and Procedures Finish March 28, 2016 Short March 28,			EY&				Т	EST	BORING REPOR	RT		В	ori	ng	ı N	о.		DP)23	5	
Casing Sampler Barrel Dilling Equipment and Procedures Driller Fernand Driller D	Clier	nt:	\mathbf{D}_{0}	elphi Corp			Ope	rations	1201 N. Magnolia			Sh St	iee art:	t N	o.: N	1 o Mar	f 1 ch 2	28, 2			
Type				Cas	ing	Sampl	er	Barrel	Drilling Equipmen	t and Procedures	1				N)	
Push	Туре	!				G		40.44	Rig Make & Model: Geol	Probe		Н8	ķΑ	Re	р.:	ŀ	(. H	logg	an	WYA-1	
Hammer Fall (in.) Push - Casing: Macricure Houstriammer Hydraulic No.	Insid	e Dia	meter	(in.)		1 3/4	1								n						
Hammer Fall (in.) - Holst/Hammer: Hydraulic No.	Ham	mer \	<i>N</i> eight	(lb.)		Push	1	-				Lo	ca		1						
Section Sect	Ham	mer l	Fall (in	.)				=	=	ulic											
Concrete 6 inches thick. Cond 1.0 - 1.5 Concrete 6 inches thick. Cond 1.0 - 1.5 Cond 1.0 -	<u> </u>	_	9	_	an	l te	loqu	\	/isual-Manual Identification	and Description	-			┼──		-		F		Tes	t
Concrete 6 inches thick. OS SP Medium dense, brown, poorly graded SAND (SP), fine grained. S S0 S	#) L	mdd	ple N	ple h (ft.	Diagr	, De	Sym			·		arse	пē	parse	ediur	ne	nes	ancy	hnes	city	gth
Concrete 6 inches thick. OS SP Medium dense, brown, poorly graded SAND (SP), fine grained. S S0 S	Dept) Olc	Sam	Sam	Well [Elev (ft.)	nscs	(De structu	nsity/consistency, color, GROU ire, odor, moisture, optional des	IP NAME, max. particle size** scriptions, geologic interpretat	ion)	ა %	% Fi	ٽ %	W %	% Fi	% Fi	Dilate	Toug	Plasti	Stren
cohesive, moist, no odor, no stain. 1	- 0 -							Concre	te 6 inches thick.												
2 1.6 SP Medium dense, frown, sirly SAND (SP), fine to medium grained, no 15 70 15 3.0 CL Medium stiff, dark brown, sandy lean CLAY (CL), medium plasticity, mo structure, no oder, no stain, mica present. 4 O05 4.5 - 5.0 O05 4.5 - 5.0 O07 6.5 - 7.0 O08 AS - 5.0 OO			000	0.5 1.0		0.5	SP	Mediur	n dense, brown, poorly graded	I SAND (SP), fine grained,					5	90	5				
1.6 SF Medium dense, brown, sity SAND (SP), fine to medium grained, no	- 1		000									İ									
2 3.0 CL Medium stiff, dark brown, sandy lean CLAY (CL), medium plasticity, mo structure, no odor, no stain, mica present. 4.0 SC Medium dense, brown, clayey SAND (SC), fine to medium grained, low plasticity, moist, no odor, no stain. 5. OW Medium dense, brown, clayey SAND (SC), fine to medium grained, low plasticity, moist, no odor, no stain. 6.4 CL Soft to medium stiff, brown, sandy CLAY (CL), medium plasticity, moist, no odor, no stain. 7. Bottom of exploration at 8 feet. Borchole backfilled with hydrated bentonite upon completion. 8.0 Bottom of exploration at 8 feet. Borchole backfilled with hydrated bentonite upon completion. 9. Overburden (lin, ft.) Rock Cored (lin, ft.) Samples 1. Undisturbed Sample 1. Cassing of Hole			001	1.0 - 1.5																	
3.0 CL Medium stiff, dark brown, sandy lean CLAY (CL), medium plasticity, no structure, no odor, no stain, mica present. M Date Tueve Data Water Level Data Borthole backfilled with hydrated bentonite upon completion. Borthole backfilled with hydrated bentonite upon completion. Borthole backfilled with hydrated bentonite upon completion. Water Level Data Borthole backfilled with hydrated bentonite upon completion. Water Level Data Borthole backfilled with hydrated bentonite upon completion. Borthole backfilled with hydrated bentonite upon comp	001 1.0 - 1.5 002 1.5 - 2.0 1.6 SP Medium dense, brown, silty SAND (SP), fine to medium graine structure moiet, no odor, no stain.														15	70	15				
3.0 CL Medium stiff, dark brown, sandy lean CLAY (CL), medium plasticity, no structure, no odor, no stain, mica present. M M Out 3.5 - 4.0 Out 4.5 - 5.0 Out 4.5 - 5.0 Out 5.5 - 7.0 Out 6.5 - 7.0 Outing Casing of Hole Out 6.5 - 7.0 Out 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	- 2							suuctui	e, moist, no odor, no stam, m	ica.											
3.0 CL Medium stiff, dark brown, sandy lean CLAY (CL), medium plasticity, no structure, no odor, no stain, mica present. M M M M M M M M M M M M M M M M M M M			003	25-30												i					
Plasticity, no structure, no odor, no stain, mica present. 004 3.5 - 4.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005 4.5 - 5.0 005	- 3		003	2.5 - 5.0		3.0		Mediur	n stiff dark brown, sandy lear	CLAY (CL) medium	_		_	_					_	M	_
4.6 SC Medium dense, brown, clayey SAND (SC), fine to medium grained, low plasticity, moist, no odor, no stain. 6 007 6.5 - 7.0 007 6.5 - 7.0 008 Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. 8 009 Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. 8 009 Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. 10 45 45 L 10 45 45							CL	plastici	ty, no structure, no odor, no si	tain, mica present.	-									191	
8 Water Level Data Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Water Level Data Date Time Elapsed Depth (ft.) to: Bottom Bottom Water T Thin Wall Tube Time (hr.) Bottom Bottom of Casing of Hole U Undisturbed Sample S Split Spoon G Geoprobe S Sp			004	3.5 - 4.0	E																
8 Water Level Data Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Water Level Data Date Time Elapsed Depth (ft.) to: Bottom Bottom Water T Thin Wall Tube Time (hr.) Bottom Bottom of Casing of Hole U Undisturbed Sample S Split Spoon G Geoprobe S Sp	- 4				ALL															100	
8 Water Level Data Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Water Level Data Date Time Elapsed Depth (ft.) to: Bottom Bottom Water T Thin Wall Tube Time (hr.) Bottom Bottom of Casing of Hole U Undisturbed Sample S Split Spoon G Geoprobe S Sp			005	4.5 - 5.0	INST	4.6	SC	Mediur	n dense, brown, clavey SAND	(SC) fine to medium graine	rd.			_	10	45	45		-		
8 Water Level Data Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Water Level Data Date Time Elapsed Depth (ft.) to: Time (hr.) Bottom Bottom Of Casing Of Hole Water T Thin Wall Tube U Undisturbed Sample S Split Spoon G Geoprobe S Split Spoon G Geoprobe Bentonite Seal Boring No. DP0235 Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High TOUGhness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High, V-Very High T-Washimum particle size (mm) is determined by direct observation within the limitations of samplers size (in millimeters).	- 5 -				ELL			low pla	sticity, moist, no odor, no stai	n.	λα,				, 0						
8 Water Level Data Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Bottom of exploration at 8 feet. Borehole backfilled with hydrated bentonite upon completion. Water Level Data Date Time Elapsed Depth (ft.) to: Time (hr.) Bottom Bottom Of Casing Of Hole Water T Thin Wall Tube U Undisturbed Sample S Split Spoon G Geoprobe S Split Spoon G Geoprobe Bentonite Seal Boring No. DP0235 Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High TOUGhness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High, V-Very High T-Washimum particle size (mm) is determined by direct observation within the limitations of samplers size (in millimeters).					VO W																
Water Level Data Sample Identification Well Diagram Summary					-																
Note Leve Data Bottom of exploration at 8 feet.	Ь																				
Water Level Data Date Time Elapsed Time (hr.) Bottom Gasing Grout Geoprobe Bottom Geoprobe		007	6.5 - 7.0		6.4	CL			LAY (CL), medium plasticit	у,					30	70			М		
Water Level Data Date Time Elapsed Time (hr.) Bottom of Hole Diagram Summary Depth (ft.) to: Diagram Size Pipe	- 7																				
Water Level Data Date Time Elapsed Time (hr.) Bottom of Hole Diagram Summary Depth (ft.) to: Diagram Size Pipe																					
Water Level Data Date Time Elapsed Time (hr.) Bottom of Hole South (hole Description	- 8																				
Water Level Data Depth (ft.) to: O Open End Rod Time (hr.) Bottom of Casing Of Casing Of Hole U Undisturbed Sample S Split Spoon G Geoprobe Field Tests: Dilatancy: Toughness: Dilatancy: Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: Sample Identification Well Diagram Summary Overburden (lin. ft.) Rock Cored (lin. ft.) Rock Cored (lin. ft.) Samples Boring No. DP0235 Boring No. DP0235						8.0		AND THE PERSON NAMED IN COLUMN	1												
Date Time Elapsed Depth (ft.) to: O Open End Rod Riser Pipe Screen Rock Cored (lin. ft.)								Boreho	le backfilled with hydrated ben	itonite upon completion.							-				
Date Time Elapsed Depth (ft.) to: O Open End Rod Riser Pipe Screen Rock Cored (lin. ft.)														:							
Date Time Elapsed Depth (ft.) to: O Open End Rod Riser Pipe Screen Rock Cored (lin. ft.)																					
Date Time Elapsed Depth (ft.) to: O Open End Rod Riser Pipe Screen Rock Cored (lin. ft.)																					
Date Time Time (hr.) Bottom of Hole Water of Hole U Undisturbed Sample Screen Screen Screen Screen Rock Cored (lin. ft.) Samples Boring No. DP0235 Field Tests: Dilatancy: Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Toughness: Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).			W				(ft) to).													
Field Tests: Dilatancy: Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High TSPT = Sampler blows per 6 in. U Undisturbed Sample S Split Spoon G Geoprobe G Geoprobe G Geoprobe Bentonite Seal Boring No. DP0235 Boring No. DP0235 Boring No. Plasticity: N-Nonplastic, L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High	Da	te	Time		. √ Bc	ttom B	ottom		'	Screen											
Field Tests: Dilatancy: Toughness: L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High TSPT = Sampler blows per 6 in. S Split Spoon G Geoprobe Bentonite Seal Plasticity: N-Nonplastic, L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High Toughness: **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).					3, 0	Sonig Of	11016	,		Cuttings					,ı		,				
Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High *SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).									' '	Concrete	Bor	in	g۱	No	٠.	_	DI	202	35		
*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).	Fiel	d Tes	ts:						ow, N-None Plas	sticity: N-Nonplastic, L-Lo						Hig	h			ah	
Note: Soil identification and percentages based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.	*S			blows per 6	in.	**M	laximu	m particle	size (mm) is determined by dire	ct observation within the limita	tions o	sa	amp	ler:	size	(in t	nillin	neter	s)	yII	

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		ameter	(in.)			1 3/	4		Bit Type: Cutting Head	- 1			n								
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(ft.)	E C	S N	0 9	(п.)	agran	Sept	ymb	\	isual-Manual Identification and Description	Se		Se	in.		ν	ج	ess	×			
Depth (ft.)	PID (pp	Sample	Sample	Deptin	Well Dia	Elev./C	uscs s			% Coar	% Fine	% Coal	% Med	% Fine	% Fine	Dilatano	Toughn	Plasticity	Strength		
- 0 -								Concre	e 8 inches thick.												
		000	0.5	1.0													ļ				
- 1		000	0.5 -	1.0		0.7	SP	Loose, no odo	prown, SAND (SP), fine to medium grained, cohesive, moist, no stain.				20	70	10	Commission of the Commission o					
- 2																					
	Drill Mud: None Casing: MacroCore Location N -																				
- 3						-															
- 4		004	4.0 -	4.5	ALLED	3.6	CL	Mediun plastici	stiff, dark brown, sandy lean CLAY (CL), fine grained, low y, moist, no odor, no stain.	Finish: March 28. Driller: Fernan H&A Rep.: K. Hog Elevation Datum Location N - E - Gravel Sand Size**, oretation) e, moist, and an an an an an an an an an an an an an											
- 5 -					ELL INST					Datum Location N - E - Grave Sand Subject Sand Subject Sand Subject S											
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- 7		007	6.5 -	7.0			SC		dense, brown, clayey SAND (SC), low plasticity, cohesive, o odor, no stain.									L			
- 8																					
						8.0			Bottom of exploration at 8 feet.												
The second secon									water not encountered. backfilled with hydrated bentonite upon completion.	7											
													and the second second second			and the same of th					
	. 1		FI	Level apsec		Depth	(ft.) to):	Sample Identification Well Diagram O Open First Red Riser Pipe O	/Orb											
Da	ite	Time		ne (hr	Bot	tom B	ottom f Hole	Water	T Thin Wall Tube Screen Filter Sand R	erb ock (impl	Cor		•								
									S Split Spoon Grout Concrete	orin		No			DF	······································	 37				
Fie	ld Tes	ts:			ilatan				w, N-None Plasticity: N-Nonplastic, L-Low, I							\/~-	!!	ah			
*8		Samplei ote: S		per 6	in.	**1	1aximu	m particle	ium, H-High Dry Strength: N-None, L-Low, Noize (mm) is determined by direct observation within the limitations sed on visual-manual methods of the USCS as practice.	of sa	amp	ler s	ize	(in r	nillin	neter	s)	yII_			

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Apr 19, 06

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		ameter	r (in)		-				Bit Type: Cutting Head		leva		<u> </u>			LIIGI	OSIC		
			` ,		•	1 3/			Drill Mud: None		atuı								
l		Weigh Fall (ir			•	Pus	11	-	Casing: MacroCore Hoist/Hammer: Hydraulic	N	ca -	tior	1						
Hall	iiiici	1 an (n	1.)					<u>-</u>	Hoist/Hammer: Hydraulic	Gra	- avel	T	San	<u>d</u>			ield	Toc	
(ft.)	Œ	8		(` #	gram	epth	oqw/	\	isual-Manual Identification and Description	-	T								
pth (dd)	nple	nple	oth oth	Dia	Q.')S S)	(De	nsity/consistency, color, GROUP NAME, max, particle size**.	Soars	Fine	Coarse	% Medium	Fine	Fines	Dilatancy	Toughness	Plasticity	Strength
	PD DB	Sar	Sar) Ce	Wei	Ele	USC USC	struct	re, odor, moisture, optional descriptions, geologic interpretation)	%	% F	%	1%	%	%	Dila	Tou	Plas	Stre
- 0		000	0.0	- 0.5				Concre	e 6 inches thick.								-		
						0.5	SP	Mediu	n dense, brown, poorly graded SAND (SP), fine to medium	-			15	85					
- 1								grained	, moist, no odor, no stain.					-					
							İ												
SP Medium dense, brown, poorly graded SAND (SP), fine to medium grained, moist, no odor, no stain.																			
- 2		002	2.0	2.5															
		002	2.0 -	- 2.3															
															l				
- 3																			
- 4					LED														
	ND	004	4.0 -	- 4.5	above.				25	75									
					SNI														
- 5 -																			
					NO.														
					_													over any	
- 6	ND	006	6.0 -	6.5															
															į				
- 7																ĺ			
]						
						7.4	SC		dense, brown, clayey SAND (SC), cohesive, low plasticity, o odor, no stain									L	
- 8						8.0			Bottom of exploration at 8 feet.	-									\dashv
								Boreho	e backfilled with hydrated bentonite upon completion.										
	:																		
			The state of the s										VI VIII VIII VIII VIII VIII VIII VIII						
																	-		

			-	Level		Depth	(ft) +	٠.	Sample Identification Well Diagram				nma						\dashv
Da	ite	Time		apsed ne (hr	√ Bot	tom E	ottom	Water	O Open End Rod Screen	erb			•	,					
***			-		1of Ca	asing c	f Hole	. 70(0)	[2 A]	ck (mpl		ed	(IIN.	. ft.))				
									S Split Spoon Grout Concrete	rin		N۸			Dr	·····	20		\dashv
Eic	ld Tes	te:		n	ilatan	ICA.	R-Rar	nid S-SI	G Geoprobe Bentonite Seal w, N-None Plasticity: N-Nonplastic, L-Low, N		_					P02:	38		
		its. Samplei	r blowe	T	oughi	néss:	L-Lov	v, M-Me	ium, H-High Dry Strength: N-None, L-Low, M size (mm) is determined by direct observation within the limitations	-Med	diur	n,	H-I-	ligh	,_V-	-Ver	y Hi	gh	_
						n and p	ercer	tages b	sed on visual-manual methods of the USCS as practic	ed k	y F	lal	ον δ	A	dric	:h, I	nc.		

H	AL LD	EY&	E H				Т	EST	BORING REPORT	В	ori	ng	N	о.		DP	024	10	
Proje Clier Cont		D		Corp			у Оре	rations	1201 N. Magnolia	Sh Sta	eet art:	N	0.: [1 о Арі	f 1 il 1	0, 2	2006		
				Cas	ina	Samp	ler	Barrel	Drilling Equipment and Procedures		nish iller		1	_		0, 2 asq	.006		
Туре					5	G			Rig Make & Model: GeoProbe	1	kA I		p.:			_		o,K	. Нф
		meter	(in)	_					Bit Type: Cutting Head	Ele	eva	tio	n						1
		Neigh [,]		-		1 3/4	1		Drill Mud: None	-	tun	~~~							
1		all (in	` '	-		Push	1	-	Casing: MacroCore Hoist/Hammer: Hydraulic	N	-	101							
TIGHT	11101 1	<u> </u>	.,					-	Holson anniner. Hydraunc	E Gra	- vel	- ;	San	d		F	ield	Tes	t
(ft.)	Ē	Sample No	0.9	E)	Well Diagram	Elev./Depth (ft.)	Symbol	\	/isual-Manual Identification and Description	se		se	En		S				
Depth (ft.)	PID (ppm)	nple	Sample		Dia) ×./D	uscs s	(De	ensity/consistency, color, GROUP NAME, max. particle size**,	Coarse	% Fine	% Coarse	% Medium	Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
	品	Sar	Sar	Ce	Wel	E €	nsc	structi	ıre, odor, moisture, optional descriptions, geologic interpretation)	%	%	%	%	%	%	i	Tot	Pla	Stre
- 0 -		000	te 6 inches thick.																
		n dense, brown, silty SAND (SM), cohesive, moist to wet, no			-		65	35				\vdash							
- 1									o stain.										
		002	1.5 -	2.0															
- 2																			
- 3																			
- 4					LED														
-		004	4.0 -	4.5	NO WELL INSTALLED		SM	Same a	s above, except coarsens downward, moist.					75	25				
					INS	į													
- 5 -					ELL														
					<u></u> 0														
					Z														
- 6		006	6.0 -	6.5		6.0			Bottom of exploration at 8 feet.			-	-				-		
									water not encountered.										
- 7								Boreho	le backfilled with hydrated bentonite upon completion.										
[/]																			
- 8				To provide the state of the sta															
Water Level Data Sample Identification Well Diagram Sample Identification Well Diagram Riser Pipe											(Sur	nm	ary					
Flansed Depth (ft.) to: Open End Red Riser Pipe											urd		•						
Date Time (hr.) Bottom Time (hr.) Bottom of Hole Water T Thin Wall Tube Screen Filter Sand Rock Cored (lin. ft.) U Undisturbed Sample Cuttings Samples																			
									U Undisturbed Sample Grout Sample										
									G Geoprobe Bentonite Seal	rin	_					P02	40		
	ld Tes			T		ness:	I-Lov	 M-Me 	ow, N-None Plasticity: N-Nonplastic, L-Low, M- dium, H-High Dry Strength: N-None, L-Low, M-	-Me	diur	n.	H-H	Hiat	1. V	'-Ve	ry H	igh	
*\$	PT = N	Sample ote: S	r blow oil id	s per 6 entifi	in. catio	**N n and p	/laximu ercer	m particle Itages b	size (mm) is determined by direct observation within the limitations ased on visual-manual methods of the USCS as practic	of sa ed l	amp oy F	ier Ial	size ev 8	(in & A	millir Idri	nete ch ,	rs). Inc.		

H	[AL	EY& RIC	ξ H				T	EST	BORING REPORT	В	ori	ing	g N	o.		DP	024	11	**
Clie	ject: ent: ntracto	D	orme elphi iterph	Corp			у Оре	erations	1201 N. Magnolia	Sh Sta	nee art:	t N		1 o Api	f 1 ril 1	0, 2	2006		
				Cas	sing	Samp	ler	Barrel	Drilling Equipment and Procedures	1	nish Tiller		•	_		0, 2 ′asq)	
Тур	e					G			Rig Make & Model: GeoProbe		:::Сі &А		p.:			_		o.K	. Н
		ameter	(in)						Bit Type: Cutting Head		eva							- ,	
					-	1 3/4			Drill Mud: None	-	atur								-
		Weigh Fall (ir	` '	•	-	Push	1	-	Casing: MacroCore		cat -	lion	1						
Hall	iiiei	i ali (li	.,		•			-	Hoist/Hammer: Hydraulic	E -	-		San		Γ			T	
Depth (ft.)	PID (ppm)	Sample No.	Sample	III (III.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol		risual-Manual Identification and Description	Coarse	r	se	7		Fines		Toughness	Tes	
Oep	PID (Sam	Sam	Dep Dep	Well	Elev (#.)	nsc	structu	nsity/consistency, color, GROUP NAME, max. particle size**, ire, odor, moisture, optional descriptions, geologic interpretation)	ٽ %	% Fi	ن %	% W	% Fi	% Fi	Dilatancy	Toug	Plasticity	Strength
ŭ		TO THE PERSON NAMED IN COLUMN 1						Concre	te 6 inches thick.										
- 1	ND	000	0.5 -	1.0		0.5	SP	Loose, no stair	brown, SAND (SP), fine to medium grained, moist, no odor,				40	60					
						1.6	SM	Mediun	n dense, brown, silty SAND (SM), cohesive, moist, no odor,	++		-	-				-	_	
- 2	ND	002	2.0	2.5		2.0	SP	no stair		++		-	50	50					
		002	2.0 -	2.5				stain.	orovia, or trob (or), this to includin granica, no odor, no					50					
- 3																			
					Ð														
4	ND	004	4.0 -	4.5	NO WELL INSTALLED	4.0	CL	Mediun	a stiff, brown, CLAY (CL) with sand, low plasticity, moist,	++		-	-+	10	90		-		
				,,,,	NST.			no odor	, no stain.		-				-				
- 5 -					rr n														
- 5 -					WE														
		1000000			NO NO									***************************************					
6	ND					6.0		T	college because as also cold CAND (CD). Control of	4			_		_		_	_	
	ND	006	6.0 -	6.5		0.0	SP	grained	yellow brown, poorly graded SAND (SP), fine to medium moist, no odor, no stain.			ľ	40	60					
7																			
															Ì				
8						8.0			Bottom of exploration at 8 feet.			+							
								Borehol	e backfilled with hydrated bentonite upon completion.										
											The state of the s								
		The state of the s																	
															Manager of second color				
			ater L		1	Depth ((ft.) to	ı.	Sample Identification Well Diagram				nma						\dashv
Da	ite	Time		psed e (hr.	Bott	tom Bo	ottom	Water	O Open End Rod Screen	erbu									
					oi Ca	onig of	Hole		Filter Sand	ck C mple		;u (,111).	1L.)					
									S Split Spoon Grout Concrete	ring		10			DP	024	(1		
Fiel	ld Tes	ts:			ilatan				w, N-None Plasticity: N-Nonplastic, L-Low, M	I-Med	diur	m,	H-F	High	1	*******			
	PT = S	Sampler		per 6		**M	aximu	n particle	ium, H-High Dry Strength: N-None, L-Low, M- size (mm) is determined by direct observation within the limitations	Med of sar	lium mple	n, h ers	H-H	<u>igh</u> in n	V- nillim	eter	3).	gh	
	N	ote: So	oil ide	ntific	ation	and pe	ercen	tages ba	sed on visual-manual methods of the USCS as practic	ed b	уΗ	ale	şγ 8	Al	dric	h, lı	ıc.		

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USCS_TB3

		EY&					Т	EST	BORING REPORT	В	ori	ing	j N	lo.		DP	024	12	
Proj Clie Con		D		Corp			у Оре	erations	1201 N. Magnolia	Sh	nee art:	t N	0.:	1 o Ap:		0, 2	2006		
				Cas	sing	Samp	ler	Barrel	Drilling Equipment and Procedures		nisi ille			_			2006 uez		
Туре				-		G			Rig Make & Model: GeoProbe	_	kΑ		p.:			-			. Но
Insid	le Dia	meter	(in.)		-	1 3/	4		Bit Type: Cutting Head		eva atur		n						
Ham	ımer \	Neigh	t (lb.)	-		Pus	h	-	Drill Mud: None Casing: MacroCore	Lo	cat		1						
Ham	mer I	Fall (in	.)	-				-	Hoist/Hammer: Hydraulic	N E	-	,							
Depth (ft.)	PID (ppm)	Sample No.	Sample	pth (ft.)	Well Diagram	Elev./Depth	USCS Symbol	(De	isual-Manual Identification and Description nsity/consistency, color, GROUP NAME, max. particle size**,	% Coarse	Fine	Coarse	Sar Wedium		Fines	Dilatancy	Toughness a	Plasticity a	
_ 0 _ 0 _	Ы	Sal	Sa	<u></u>	×	Ŭ₩	nSi		re, odor, moisture, optional descriptions, geologic interpretation)	%	%	%	%	%	%	Ë	٦٥	Pa	Stre
								Concre	e 6 inches thick.										
SP Loose, brown, poorly graded SAND (SP), fine to medium grained, moist, no odor, no stain, mica present.													45	55					
- 1	ND	001	1.0 -																
- 2																			
	ND	003	2.5 -	- 3.0															
- 3																			
- 4					LED	4.0		77.5				_	_	-00			-		_
					ISTAI	4.0	CL	mediun	stiff, brown, sandy CLAY (CL), fine grained, low to plasticity, moist, no odor, no stain.					20	80			L-M	
- 5 -					NO WELL INSTALLED														
	ND	005	5.0 -	- 5.5	O WE														
					ž														
- 6						6.0	SP	Loose, medium	prown to yellow brown, poorly graded SAND (SP), fine to grained, moist, no odor, no stain.				40	60					
	ND	007	6.5 -	7.0															
- 7																			
- 8						8.0			Bottom of exploration at 8 feet.										_
								Boreho	e backfilled with hydrated bentonite upon completion.										
		W		Level			(ft) +-	1	Sample Identification Well Diagram				nm						
Da	ite	Time		apsed ne (hr	. ∤ Bot		ottom f Hole	Water	O Open End Rod Screen	verbu ock C			•						
							1100		U Undisturbed Sample Cuttings Sample	ample					, 				
									S Shift Shoon	orin	g l	No	٠.		DI	P02	42		
Fiel	ld Tes	ts:			ilatan oughr	néss:	L-Lov	v, M-Med	w, N-None Plasticity: N-Nonplastic, L-Low, I lium, H-High Dry Strength: N-None, L-Low, M	I-Med	liur	n,	H-t	ligh	ı, V			gh	
*8		Sampler ote: So		s per 6	in.	**N	laximu	m particle	size (mm) is determined by direct observation within the limitations used on visual-manual methods of the USCS as practi	of sa	mp	ler s	size	(in I	nillin	netei	rs).		

USCS_TB3 USCSLIB3.GLB USCSTBC3.GDT G:\32486\GINT\32486_LOGS.GPJ

H	[AL LD	EY&	S z H				T	EST	BORING REPORT Boring No.	DP0243		
Clie	ject: nt: ntract	D	ormer elphi nterpha	Corp			у Оре	erations		1 n 28, 2006		
				Cas	sing	Samp	ler	Barrel	Drilling Coulomant and Decardures	n 28, 2006 rnando		
Турє	e					G				Hoggan		
Insid	de Dia	ameter	(in.)			1 3/	4		Bit Type: Cutting Head Elevation	the Build fall income to the left was a modern a		
l		Weigh				Pus		_	Drill Mud: None Datum Casing: MagraCare Location			
		Fall (ir				2 0.5.		_	Casing: MacroCore Hoist/Hammer: Hydraulic Location N - E -			
	ı				E	۱ ج	1 0	1	Gravel Sand	Field Test		
(ft.)	(mc	N O	ψ €	(14:7)	agrar	Jept	Symbol	\	Visual-Manual Identification and Description □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	S & S C		
Depth (ft.)	PID (ppm)	Sample No.	Sample Denth (#))	Well Diagram	Elev./Depth	USCS 8	(De struct	Visual-Manual Identification and Description ensity/consistency, color, GROUP NAME, max. particle size**, ure, odor, moisture, optional descriptions, geologic interpretation)	Dilatancy Toughness Plasticity Strength		
- 0								Concre	ete 6 inches thick.			
		001	0.5 -	1.0		0.5	SM	Mediui moist	m dense, brown, silty SAND (SM), fine grained, cohesive, no odor, no stain.	5		
- 1												
- 2						1.6	m stiff, brown, clayey SILT (ML), low plasticity, moist, no	5 L - ·				
		003	2.5 -	3.0		2.4	n dense, brown, poorly graded silty SAND (SM), fine [65] [1] [1] [2] [3] [4] [5] [65] [65] [65] [65] [65] [65] [65]	5				
- 3			2.5					gramee	i, moist, no odor, no stain.			
- 4					LED	3.8		Brown	clayey SILT with sand (ML), low plasticity, moist, no odor,			
		005	4.5	5.0	INSTAL			no stair	1.			
- 5 -		005	4.5 -	5.0	NO WELL INSTALLED							
- 6		****			NO							
- 6												
- 7		007	6.5 - 1	7.0		6.6	SM	Brown,	silty SAND (SM), moist, no odor, no stain.	5		
_		7.										
- 8						8.0			Bottom of exploration at 8 feet.			
								Boreho	le backfilled with hydrated bentonite upon completion.			
		W	ater L	evel	Data				Sample Identification Well Diagram Summary			
Da	te	Time		psed	-	Depth tom B	(ft.) to		O Open End Rod Riser Pipe Screen Overburden (lin. ft.)			
			Time	∋ (hr.			Hole	Water	T Thin Wall Tube Filter Sand Rock Cored (lin. ft.)			
									U Undisturbed Sample S Split Spoon G Cooperate C Cooperate C Cooperate D Undisturbed Sample Grout Concrete Boring No.	D0242		
Fiel	ield Tests: Dilatancy: R-Rapid, S-Slow, N-None Dilatancy: R-Rapid, S-Slow, N-None Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High											
	Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High *SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).											
	N	ote: S	oil ide	ntific	ation	and p	ercen	tages ba	ased on visual-manual methods of the USCS as practiced by Haley & Ald	ich, Inc.		

H A	AL LD	EY& RIC	SE H				7	EST	BORING REPOR	RT	В	ori	ng	, N	о.		DP	024	6	
Proj Clie Con		D	orme elphi nterph	Corp			/ Ор	erations	1201 N. Magnolia		S	le N hee tart:	t N	o.:	1 o Apr	f 1 il 1	0, 2	006		
			***	Cas	sing	Sampl	er	Barrel	Drilling Equipmen	nt and Procedures		nisł rille		4			0, 2 ′asqı			
Туре	9			_	-	G			Rig Make & Model: Geo	Probe		&A		р.:			•		,K.	Høg
Insid	de Dia	ameter	(in.)	-	-	1 3/4	4		Bit Type: Cutting Head Drill Mud: None			leva atur		n						
Ham	nmer \	Weigh	t (lb.)	-	-	Push	1	-	Casing: MacroCore		Lo	ocat		1						
Ham	mer	Fall (ir	າ.)	-	-			-	Hoist/Hammer: Hydra	ulic	N E	-	,		,					
ft.	Ē	No.	á	(-)	jram	epth	Symbol	\	/isual-Manual Identification	n and Description		avel	1	San E				ield ss		
Depth (ft.)	PID (ppm)	Sample No	Sample	Deptn (I	Well Diagram	Elev./Depth (ft.)	USCS Sy		ensity/consistency, color, GROU ure, odor, moisture, optional des			% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
- 0 -								Concre	te 6 inches thick.									+	_	Ť
	ND	001	0.5 -	. 1.0		0.5	SP	Loose,	brown, poorly graded SAND	(SP), fine to medium grained	,			50	50					
- 1	T T T T T T T T T T T T T T T T T T T	001	0.5	1.0				cohesiv	re, moist, no odor, no stain.											
- 2	0.2		***************************************																	
2								3												
		003	2.5 -	3.0																
- 3								THE REAL PROPERTY AND ADDRESS OF THE PERSON												
					_															
- 4	ND				LED															
	ND				[STA]	4.3	CL		n stiff, brown, sandy CLAY (6	CL), low plasticity, moist, no				-	30	70	_			
_		005	4.5 -	5.0				odor, n	o stain.											ı
- 5 -					NO WELL INSTALLED						100									
					ž						A A A A A A A A A A A A A A A A A A A									
6																				
		007	6.5 -	7.0																
7		007	0.3 -	7.0		6.8	SP	Mediun	dense, brown to yellow brownedium grained, moist, no ode	vn, poorly graded SAND (SP), +		-	40	60	-			-	-
								Time to	medium gramed, moist, no od	or, no stam.										
8							_													
υ						8.0			Bottom of explorat											
								Borehol	e backfilled with hydrated ben	ntonite upon completion.										
				and the same of th													-			
																	TT S SERVICE STATE OF THE PARTY			
		1.5			n .															_
D-	· ·		ater L	_evel apsed	1	Depth (D:	Sample Identification O Open End Rod	Well Diagram Riser Pipe	Overb			nma Ilin						
Da	ite	Time	2 !	e (hr.		tom Bo	ttom Hole	Water	T Thin Wall Tube	Screen Filter Sand	Rock (
									U Undisturbed Sample	Cuttings Grout	Sampl	es		***						_
									S Split Spoon G Geoprobe	Concrete Bentonite Seal	Borin						P 024	16		
	d Tes			To		iess: L	Lov	/. M-Med	lium, H-High Dry	sticity: N-Nonplastic, L-Lov Strength: N-None, L-Low	M-Med	diun	n. F	H-H	iah.	. V-	Ven	/ Hig	h	
*8		Sampler ote: Se				**Mi and pe	axımu ercer	m particle I <mark>tages b</mark> a	size (mm) is determined by dire ased on visual-manual met	ct observation within the limitat thods of the USCS as pra	ons of sa	impl y H	er s lale	y 8	in m	nillim dric	eters h, Ir	i). 1C.		

H	AL LD	EY& RIC	æ H				Т	EST	BORING REPORT	Во	rii	ng	No).	DF	024	17	
Proj Cliei Con		De		Corp	heim orati		у Оре	rations	1201 N. Magnolia	She Sta	eet rt:	No	o.: 1 A	of pril	12,	2006		
				Cas	ina	Samp	ler	Barrel	Drilling Equipment and Procedures	Fini Dril			A		12, : Vasc	2006 mez		
Туре	<u> </u>					G			Rig Make & Model: GeoProbe	H&.).:			•	o,K	. Но
		meter	(in)	_		1 3/	4		Bit Type: Cutting Head	Ele			3	************				
		Neight	` ′			Pus		_	Drill Mud: None	Dat								
		all (in		_		1 40		_	Casing: MacroCore Hoist/Hammer: Hydraulic	N - E -		•						
	1				. F		- J	1		Grav		S	and			Field	Tes	t
(#)	pm)	e N	<u>a</u> ((11.)	agraı	Dept	Symbol	\	isual-Manual Identification and Description	ırse	0	arse	dium	0)	ا خ ا	ssau	<u>-</u>	£
Depth (ft.)	PID (ppm)	Sample No	Sample	Depu	Well Diagram	Elev./Depth	USCS ((De structu	nsity/consistency, color, GROUP NAME, max. particle size**, re, odor, moisture, optional descriptions, geologic interpretation)	% Coarse	% Fine	% Coarse	% Medium	% Fine	Dilatancy	Toughness	Plasticity	Strength
- 0 -							SP	Loose, wet, no	brown, SAND (SP), medium to coarse grained, trace gravel, odor.	The state of the s								
- 1	And the second s	001	1.0 -	1.5			SW	Same a	above, except fine to coarse grained.									
		001	1.0	1.5											OCCUPATION AND ADDRESS OF THE PARTY OF THE P		4990000	£
~ 2		002	2.0 -	2.5														
- 3							sw	Same a	above, except wet.									
					e e										-			
- 4		THE PARTY OF THE P			STALLE													
- 5 -		005_01 005_02			NO WELL INSTALLED		CL	Soft, bi	own, sandy CLAY (CL), wet, no odor.									
		003_02	3.0 -	3.3	NO V													
- 6																		
- 7							SW	Soft, bi	own, SAND (SW), fine to medium grained, wet, no odor.						MARKET LANGE OF THE PARKET OF			
- 8						8.0			Bottom of exploration at 8 feet.	+		+	+	+				
									12 foot sample 25% full of mud/water - soil is super		-						ĺ	
									d. Stopped boring.									
								Boreho	e backfilled with hydrated bentonite upon completion.									
		10/	ater l	ا ۱۹۷۹	Data				Sample Identification Well Diagram		0	um	nma	rv	<u> </u>			
Da	ate	Time	Ela	apsed	d	Depth		D:	O Open End Rod Riser Pipe Ov	erbu				-				\neg
De	410	111110	Tim	ne (hr			ottom of Hole	Water	T Thin Wall Tube Screen Ro	ck C	ore	,		•				
									S Split Speep	mple ring		J0				17		_
Fie	ld Tes	its:			Dilatar	ncy:	R-Rap	oid, S-SI	G Geoprobe Bentonite Seal WW. N-None Plasticity: N-Nonplastic, L-Low, N	l-Med	diur	n,	H-F	ligh	P02			
	SPT = :	Sampler	blows	T s per 6	ough in.	néss: **I	Лахіти	m particle	lium, H-High Dry Strength: N-None, L-Low, M size (mm) is determined by direct observation within the limitations	Med of sar	iun mpl	n, h ers	⊣-Hi ize (gh, in mil	imete	ers).	igh	
	N	ote: So	oil ide	<u>entifi</u>	catio	n and j	ercer	tages b	ased on visual-manual methods of the USCS as practic	<u>ed b</u>	<u>y H</u>	ale	y &	Ald	<u>rich,</u>	Inc.		

H A	AL LD	EY&	S ≥ H				7	EST	BORING REPO	RT	В	ori	ing	j N	о.	I	DP	024	9	
Clie	ject: nt: ntracto	D		Corp			у Ор	erations	1201 N. Magnolia		S	ile N hee tart:	t N	o.: ;	l of Apr	il 11	1, 2	006		
				Cas	sing	Samp	ler	Barrel	Drilling Equipmen	t and Procedures	1	inisl rille		1	_	il 11 'erna				
Туре	 Э					G			Rig Make & Model: Geo			a. &A		p.:					,K. 1	Hog
		ameter	(in.)			1 3/	<i>1</i>		Bit Type: Cutting Head		Е	leva	atio	n					,	7
		Weigh			_	Pus		_	Drill Mud: None		ļ	atur oca								-
		Fall (in		_	-	1 43		_	Casing: MacroCore Hoist/Hammer: Hydra	ulic	N	_	liOi	1						
	1			L.,		1 5		1	11) dia		E Gra	- avel		San	d		F	ield 1	est	\dashv
(#)	(mc	e NG	φ ξ	(H.)	agrar)ept	ymp	\	/isual-Manual Identification	n and Description	Şe		Se	im		S	>	ess	> 6	_
Depth (ft.)	PID (ppm)	Sample No	Sample	Depth	Well Diagram	Elev./Depth	USCS Symbol	(De	ensity/consistency, color, GROU ure, odor, moisture, optional de	JP NAME, max. particle size** scriptions, geologic interpretat	on) %	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	oneugu
- 0 -								Concre	te 6 inches thick.							+		+		7
						0.5	SP	Loose	brown, SAND (SP), fine to m	andium grained maist no ad						4	_			
- 1							51	no stair	1.	ectium gramed, moist, no odi	л, 				-					
•															İ					
		001	1.5 -	2.0		1.5	SC		n dense, dark brown, clayey S	AND (SC), fine to medium	-+-	-	-	-+	- +	-			-	
- 2				2.0				grained	, cohesive, moist, no odor, no	stain.										İ
														-						
- 3								111111111111111111111111111111111111111												
					ED															
- 4					WELL INSTALLED															
					INST		SP	Mediun	n dense, brown, SAND (SP), i	fine to medium grained.										
- 5 -					ETT					β										
***************************************		006	5.0 -	5.5	IM C			Soil gas	at 5 feet.											
					ON		SM	Mediun	dense, brown, silty SAND (S	SM), fine grained, cohesive,				ĺ						
6								moist, i	no odor, no stain.											
																	-			
7																				
						11000000	ML	Medium	n stiff, brown, sandy SILT (M	I) achariya majat na adam										
8							IVIL	no stain		L), conesive, moist, no odor,										
													-							
							ML		nedium dense, brown, SILT (ML), layering, carbonate										
9								nodules	•				***************************************							
				no.														Trock toronous		
10 -		W/	ater I	_evel	Data				Sample Identification	Well Diagram		-	1	nma	ırı,					+
Da	te	Time	Fla	apsed	I	Depth);	O Open End Rod	Riser Pipe	Overb									1
		111110	Tim	e (hr	Bot of Ca		ottom Hole	Water	T Thin Wall Tube	Screen Filter Sand	Rock (`	,					
									U Undisturbed Sample	© q d Cuttings Grout	Sampl					****				
								The second secon	S Split Spoon G Geoprobe	Concrete	Borin	g١	10.]	DP	024	9		
Fiel	d Test	ts:			ilatan				w, N-None Plas	Bentonite Seal sticity: N-Nonplastic, L-Lov	v, M-Me	diur	n,	H-F	ligh					1
*\$	PT = S	Sampler	blows	per 6	oughn in.	**N	aximu	m particle	size (mm) is determined by dire	Strength: N-None, L-Low ct observation within the limitat	ons of sa	lama	er s	ize (in m	illime	eters	.).	h	1
	No.	ote: So	oil ide	entific	ation	and p	ercer	tages ba	ised on visual-manual met	thods of the USCS as pra	cticed b	у Н	ale	y &	Alc	<u>Iricl</u>	h, Ir	ıc.		J

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USCS_TB3

F	IAI LD	EY	æ CH			T	EST BORING REPORT	F	File	No	g N o. No.	324	186	P02			
		o o		E E	oth	log	Visual-Manual Identification and Departmen	Gra	avel		San	d			ield	Tes	t
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description	% Coarse	<u>Э</u> е	Coarse	Medium	Je.	nes	ncy	Toughness	city	gth
- 10		Sam	Sam	Well [Elev (ft.)	nscs	(Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)	%	% Fine	%	% We	% Fine	% Fines	Dilatancy	Tough	Plasticity	Strength
- 11	0.8	T A STATE OF THE S				SP	Medium dense, brown, SAND (SP), fine grained, moist, no odor, no stain.										
	0.0															Management	
- 12						TO THE RESIDENCE OF THE PARTY O											
- 13	- Over the state of the state o								MANAGE STORY						THE STATE OF THE S		
- 14												OF PARTIES AND ADDRESS OF THE PARTIES AND ADDRES		TO CONTRACT TO CON		And the second second	
- 15	0.7						Soil gas at 15 feet.						W 10 10 10 10 10 10 10 10 10 10 10 10 10			ALL AND DESCRIPTION OF THE PROPERTY AND ADDRESS OF THE PRO	
- 16						SM	Medium dense, brown to olive brown, silty SAND (SM), fine grained, moist, no odor, no stain.			Walls III							
- 17				0.00.000		ML	Soft to medium stiff, brown, SILT (ML), moist, no odor, no stain.										
- 18						SP	Medium dense, brown, SAND (SP), fine grained, moist, no odor, no stain.						A COMPANY OF THE PARTY OF THE P				
- 19	_																
	0.5											100			MANAGEMENT OF THE PROPERTY OF		
- 20 ·														The Control of the Co			
- 21	0.9						Soil gas at 21 feet.			Annual Control of the						The state of the s	
- 22						SP	Same as above, except wet.					The state of the s					
- 23		023	22.5 - 23.0			ML	Soft to medium stiff, brown, SILT (ML), low plasticity, cohesive, moist, no odor, no stain.										
- 24						SP	Medium dense, brown, SAND (SP), fine grained, moist to wet, no odor, no stain.										
							nm) is determined by direct observation within the limitations of sampler size										

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

Boring No.

DP0249

I-A	IAL LD	EY RIC	&z CH			Т	EST BORING REPORT	F	3or File She	No		324	186	P02			
Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation)		avel		San	d		F	Toughness a	Plasticity a	Strength
- 25					25.0		Bottom of exploration at 25 feet. Note: Hole collapsed at 21 feet. Soil gas at 5, 15, 21 feet. Borehole backfilled with hydrated bentonite upon completion.										

*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size.

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

DP0249

H	[AL LD	EY&	Sz H			•	TEST	BORING REPORT		В	ori	ing	, N	о.		DP	025	50	-
Clie	ject: ent: etract	D	ormer A elphi Conterphase	orporat		ery Op	perations	1201 N. Magnolia		SI	le N neet	t No	0.:	1 ot Apr	f 2 il 1	2, 2	.006		
			C	Casing	San	npler	Barrel	Drilling Equipment and Procedu	ures		nish riller		1	-		2, 2 asq)	
Тур	е			_	(3		Rig Make & Model: GeoProbe		⊣ .	&A		р.:			_		o,K	С. Н
Insid	de Dia	ameter	(in.)	_	1 3	3/4		Bit Type: Cutting Head Drill Mud: None			eva atur		n						
Han	nmer	Weigh	ıt (lb.)	-	Pu	ish	-	Casing: MacroCore		Lo	cat								
Han	nmer	Fall (ir	1.)	-			-	Hoist/Hammer: Hydraulic		N E									
£	(F)	Š.		Ea	bth	loqu	,	/isual-Manual Identification and Descrip	tion	1	avel	+	San E					Tes	st
Depth (ft.)	PID (ppm)	Sample No	Sample Depth (ft.)	Well Diagram	Elev./Depth	(ft.) USCS Symbol	(De	nsity/consistency, color, GROUP NAME, max. rre, odor, moisture, optional descriptions, geolo	particle size**,	% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
- 0 -	l land						Concre	te 8 inches thick.										ш.	0,
- 1					0	.7 SW	Soft, b	own, SAND (SW), fine to medium grained, o	lamp, no odor.										
- 2	2.3						To the state of th												
- 3						sc	Medium no odo	a stiff, dark brown, clayey SAND (SC), fine \mathfrak{g}	grained, moist,					WANTED THE TAXABLE TO SERVICE THE TAXABLE TO SERVICE THE TAXABLE TO SERVICE THE TAXABLE TO SERVICE THE TAXABLE TO SERVICE THE TAXABLE THE				L	
- 4				LLED	- Annual mana	SP	Soft, b	own, SAND (SP), fine to medium grained, m	oist, no odor.				STATE OF THE STATE						
- 5 -	1.3	006	6.0 - 6.:	NO WELL INSTALLED		CL	. Mediur no odor	a stiff, brown, sandy CLAY (CL), very fine g	rained, moist,					TOTAL STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET, THE STREET,					
- 7						CL	Stiff, b	own, CLAY (CL), moist, no odor.			1								
- 8														The state of the s	and the state of t				
- 9	2.0	010	9.5 - 10.	0															
- 10 -																			
	to		ater Lev Elaps	T	Depti	า (ft.) t	0:	Sample Identification Well Diag	Dino	arh,	S ırde	Sum an (l							
Da	ιе	Time	Time (hr Bo	ttom	Bottom of Hole	Water	T Thin Wall Tube Scree	n I		ore			,					
	The state of the s							U Undisturbed Sample Grout	gs Sar	nple				,					
								G Geoprobe Concr	rete Bo nite Seal							025	50		
	d Tes			Dilatar Toughi	ness:	L-Lov	v. M-Med	w, N-None Plasticity: N-Nonp ium, H-High Dry Strength: N-N	one. L-Low. M-	Med	lium	n. H	1-Hi	iah.	V-\	Very	/ Hig	gh	
*8			blows pe oil ident		n and	Maximu percei	ım particle ntages ba	size (mm) is determined by direct observation wi sed on visual-manual methods of the U	thin the limitations	of sa	mple	er si	ze (in m	illime	eters).		

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H	HALEY& ALDRICH				TEST BORING REPORT							Boring No. DP0250 File No. 32486 Sheet No. 2 of 2							
o Depth (ft.)	PID (ppm)	Sample No.	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	SW NSCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size**, structure, odor, moisture, optional descriptions, geologic interpretation) Soft, brown, SAND (SW), fine to medium grained, moist, no odor.	% Coarse	% Fine		San mipay %		% Fines	Ullatancy Toughness @	Plasticity at				
- 11																			
- 12					12.0		Bottom of exploration at 12 feet. Groundwater not encountered. Borehole backfilled with hydrated bentonite upon completion.												
									THE PROPERTY AND ADDRESS OF THE PROPERTY OF TH				PROPERTY AND AND AND AND AND AND AND AND AND AND	dominion and the second					

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*SPT = Sampler blows per 6 in. **Maximum particle size (mm) is determined by direct observation within the limitations of sampler size. NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

DP0250